Listing of Claims

Claim 1 (original) A method for identifying a flow of data between a source and a destination in a network, said method comprising the steps of:

identifying a plurality of packets at a first point and a second point in the network;

comparing a source address of each packet identified at the second point with one or more source addresses of packets identified at the first point; and

if one of the compared source addresses matches, identifying a destination address of the corresponding packet identified at the second point, and associating the identified destination address and the matching source address to a flow between the source and destination.

Claim 2 (original) A method for identifying a flow of data between a source and a destination in a network, said method comprising the steps of:

identifying a plurality of packets at a first point and a second point in the network;

comparing a destination address of each packet identified at the first point with one or more destination addresses of packets identified at the second point; and

if one of the compared destination addresses matches, identifying a source address of the corresponding packet identified at the first point, and associating the identified source address and the matching destination address to a flow between the source and destination.

Claim 3 (currently amended) The method of claim 2, wherein the step of identifying a plurality of packets at the second point further comprises the steps-step of generating a compressed address group based on the destination address of each packet identified at the second point.

Claim 4 (currently amended) The method of claim 3, wherein generating the compressed address group comprises the steps of:

identifying network addresses based on the destination addresses identified at the second point; and

classifying each identified network address based on a range of bits in the identified network addresses.

Claim 5 (currently amended) The A method of claim 3 for identifying a flow of data between a source and a destination in a network, said method comprising the steps of:

-2-

identifying a plurality of packets at a first point and a second point in the network, said step of identifying a plurality of packets at the second point in the network comprising generating a compressed address group based on the destination address of each packet identified at the second point , wherein generating the compressed address group comprises identifying network addresses for the packets identified at the second point and, if the identified network addresses of two of the packets identified at the second point differ by a least a significant bit, then generating a compressed address by combining the identified addresses of the two packets;

comparing a destination address of each packet identified at the first point with one or more destination addresses of packets identified at the second point; and

if one of the compared destination addresses matches, identifying a source address of the corresponding packet identified at the first point and associating the identified source address and the matching destination address to a flow between the source and destination.

Claim 6 (currently amended) The A method of claim 3 for identifying a flow of data between a source and a destination in a network, said method comprising the steps of:

identifying a plurality of packets at a first point and a second point, said step of identifying a plurality of packets at the second point in the network comprising generating a compressed address group based on the destination address of each packet identified at the second point; and

if one of the compared destination addresses matches, identifying a source address of the corresponding packet identified at the first point, and associating the identified source address and the matching destination address to a flow between the source and destination; and

wherein generating the compressed address group comprises:

identifying network addresses based on the destination address identified at the second point;

classifying each identified network address based on a range of bits in the identified network addresses; and

if the identified network addresses of two of the packets identified at the second point differ by at least a significant bit, then generating a compressed address by combining the identified network addresses of the two packets, wherein the length of the compressed address is one bit less than the combined network addresses.

Claim 7 (original) The method of claim 2, further comprising the step of generating flow information at the first point based on the matched destination address and the identified source address.

-3-

Claim 8 (original) The method of claim 7, further comprising the step of sending the flow information generated at the first point to the second point.

Claim 9 (currently amended) The method of claim 8, further comprising updating the flow information at the first and second ~~point~~ points when a new destination address is identified at the second point.

Claim 10 (currently amended) The method of claim 8, further comprising the step of updating the flow information at the first and second ~~point~~ points when a destination address is purged at the second point after a pre-determined time-out period.

Claim 11 (currently amended) A method for determining a direction of flow of data between a source and a destination network, said method comprising the steps of:

identifying a plurality of packets at a first point and a second point in the network;

selecting a time-to-live value from the plurality of packets identified at the first point and at least one of the plurality of packets identified at the second point;

comparing a destination address of each packet identified at the first point with a destination address of one or more packets identified at the second point; and

if one of the compared destination addresses matches, then identifying a source address of the corresponding packet identified at the first point, associating the identified source address and the matching destination address to a flow between the source and destination, and comparing the time-to-live ~~value~~ values of the packets identified at the first point and the at least one of the plurality of packets identified at the second point corresponding to the flow between the source and the destination to determine the direction of flow between the source and the destination.

Claim 12 (currently amended) A method for determining a direction of flow of data between a source and a destination in a network, said method comprising the steps of:

identifying a plurality of packets at a first point and a second point in the network;

selecting a time-to-live value from at least one of the plurality of packets identified at the first point and at least one of the plurality of packets identified at the second point;

comparing a source address of each packet identified at the second point with a source address of one or more packets identified at the first point; and

if one of the compared source addresses matches, then identifying a destination address of the corresponding packet identified at the second point, ~~and~~ associating the identified destination address and the matching source address to a flow between the source and destination, and comparing the time-to-live ~~value~~ values of the packets identified at the

-4-

first point and the at least one of the plurality of packets identified at the second point corresponding to the flow between the source and destination to determine the direction of the flow between the source and the destination.

Claim 13 (currently amended) A system for identifying a flow of data between a source and a destination in a network, comprising:

a first processor that identifies a destination address of one or more packets flowing through a second point in the network and sends the ~~compressed~~ destination address to a first point in the network;

a second processor that identifies a destination address of a packet flowing through the first point, receives the destination addresses from the first processor, and generates flow information based on a comparison between the destination addresses received from the first processor and the destination addresses of the packet identified at the second processor, wherein the flow information identifies the flow of packets between the first point and the second point.

Claim 14 (currently amended) A system for identifying a flow of data between a source and a destination in a network, comprising:

a first processor that identifies a source address of one or more packets flowing through a first point in the network and sends the source addresses to a second point in the network; and

a second processor that identifies a source address of a packet flowing through the second point, receives ~~compressed~~ source addresses from the first processor, and generates flow information based on a comparison between the source addresses received from the first processor and the source address of the packet identified at the second processor, wherein the flow information identifies the flow of packets between the first point and the second point.

Claim 15 (previously added) A method comprising:

receiving a first set of information;

receiving a second set of information;

generating a match value from the first set of information and the second set of information; and

generating a flow entry based upon the match value.

Claim 16 (previously added) The method of claim 15 wherein:

-5-

the first set of information comprises a first source address and a first destination
address;

the second set of information comprises a second source address and a second
destination address;

the match value is based upon the first destination address and the second destination
address; and

the flow entry indicates that information is flowing between a first node associated
with the first set of information and a second node associated with the second set of
information.

Claim 17 (previously added) The method of claim 16 wherein:

the first set of information comprises a first time-to-live value;

the second set of information comprises a second time-to-live value; and

the flow entry indicates the direction of information flowing between the first node and
the second node, the flow entry based upon the first time-to-live value and the second
time-to-live value.

Claim 18 (previously added) A method comprising:

comparing a first destination address with a second destination address to generate a
match value; and

generating a flow entry based upon the match value.

Claim 19 (previously added) The method of claim 18 wherein the flow entry indicates that
information is flowing between a first node associated with the first destination address and
a second node associated with the second destination address.

Claim 20 (previously added) A method comprising:

comparing a first source address with a second source address to generate a match
value; and

generating a flow entry based upon the match value.

Claim 21 (previously added) The method of claim 20 wherein the flow entry indicates that
information is flowing between a first node associated with the first source address and a
second node associated with the second source address.

-6-